

Appl. No.: not assigned
Amdt. dated September 8, 2003

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-49 (canceled)

Claim 50 (original): A method for detecting whether a genomic DNA is hypomethylated or hypermethylated in the region which comprises TSP50 that is present in a test sample of cells which comprises:

- a) cleaving said genomic DNA isolated from said test sample of cells with a restriction enzyme to generate a cleaved test-cell DNA;
- b) hybridizing a probe to said cleaved test-cell DNA to form a hybridization complex, wherein said probe comprises a nucleic acid which hybridizes to said region which comprises TSP50; and

c) determining the size of the hybridization complex;
wherein said restriction enzyme cleaves a nonmethylated DNA but does not cleave a methylated DNA.

Claim 51 (original): The method of Claim 50, wherein said test sample comprises breast tissue or ovarian tissue, or testicular tissue or a body fluid.

Claim 52 (original): The method of Claim 50, wherein said test sample comprises cancer cells.

Claim 53 (original): The method of Claim 50, wherein said region of genomic DNA which comprises TSP50 is within 10 kb of transcribed TSP50 nucleotides.

Claim 54 (original): The method of Claim 50, wherein said region of genomic DNA which comprises TSP50 is within 2 kb of transcribed TSP50 nucleotides.

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Claim 55 (original): The method of Claim 50, wherein said restriction enzyme is *Msp* I.

Claim 56 (original): The method of Claim 50, which further comprises:

- a) cleaving genomic DNA isolated from a control sample of cells with said restriction enzyme to generate a cleaved control-cell DNA,
- b) hybridizing said probe to said cleaved control-cell DNA to form a control-hybridization complex; and
- c) determining the size of the control-hybridization complex.

Claims 57-59 (canceled)

Claim 60 (original): A method of identifying human TSP50 mRNA in a test sample, which comprises:

- a) contacting test sample RNA with a nucleic acid probe comprising a nucleotide sequence which is complementary to a portion of a human TSP50 mRNA; and
- b) determining whether said probe hybridizes to said TSP50 mRNA.

Claim 61 (original): The method of Claim 60, wherein said test sample comprises breast tissue or ovarian tissue or testicular tissue or a body fluid.

Claim 62 (original): The method of Claim 60, wherein said test sample comprises cancer cells.

Claim 63 (original): The method of Claim 60, which further comprises identifying TSP50 mRNA in a control sample, said control sample comprising a mammalian tissue sample in which TSP50 is not expressed.

Claims 64-66 (canceled)

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Claim 67 (original): A method of identifying TSP50 mRNA in a test sample, said method comprising the steps of making a cDNA to said TSP50 mRNA and identifying said cDNA.

Claim 68 (original): The method of Claim 67, wherein said test sample comprises breast tissue or ovarian tissue or testicular tissue or a body fluid.

Claim 69 (original): The method of Claim 67, wherein said test sample comprises cancer cells.

Claim 70 (original): The method of Claim 67, which further comprises identifying TSP50 mRNA in a control sample, said control sample comprising a tissue sample in which TSP50 is not expressed.

Claim 71 (original): The method of Claim 67, wherein said cDNA is made by reverse transcription.

Claim 72 (canceled)

Claim 73 (original): The method of Claim 67, wherein said cDNA is made by polymerase chain reaction.

Claim 74 (original): The method of Claim 73, wherein said polymerase chain reaction employs a first primer comprising SEQ ID NO:12 and a second primer comprising SEQ ID NO:11.

Claim 75 (canceled)

Claim 76 (original): A method for identifying testicular tissue in a test sample which comprises detecting whether TSP50 mRNA is present in said test sample.

Claim 77 (canceled)